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09/823,254	03/29/2001	Frank T. Brown	5038-73	6340

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EXAMINER

KOVALICK, VINCENT E

ART UNIT PAPER NUMBER

2673

DATE MAILED: 06/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/823,254

Applicant(s)

BROWN ET AL.

Examiner

Vincent E. Kovalick

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-7, 13, 22, 36, 38, 39, 41, 43, 45-48 and 53-58 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 45 and 55 is/are allowed.
- 6) ☒ Claim(s) 5-7, 13, 22, 36, 38, 39, 41, 43, 46-48, 53, 54 and 56-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Response to Amendment

1. This Office Action is in response to Applicant's Amendment dated January 5, 2005 in response to USPTO Office Action dated September 10, 2004.

The cancellation of claims 1-4, 8-12, 14-21, 23-35, 37, 40, 42, 44 and 49-52; the amendments to claims 5-7, 13, 22, 38 and 43, and the addition of new claims 55-58 have been noted and entered in the record.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7, 22, 41 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egli (USP 4,592,285) taken with Fukuchi et al. (USP 5,162,821) in view of Kroitor (USP 6,577,315).

Relative to claims 7, 22 and 43, Egli **teaches** a drawing table (col. 1, lines 66-68 and col. 2, lines 1-68); Egli further **teaches** a drawing tablet, comprising a translucent surface (col. 1, lines 9-15 and col. 3, lines 14-26).

Egli **does not teach** an imaging sensor mounted below the surface, the imaging sensor designed to capture a mirror image on the surface even if the mirror image is occluded from above; and

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software in a computer designed to adjust the image to compensate for the mirror image captured by the imaging sensor.

Egli **teaches** a drawing tablet.

Fukuchi et al. et al **teaches** an image reading/sensing device (col. 3, lines 18-68 and col. 4, lines 1-54); Fukuchi et al. further **teaches** an image sensor mounted below the surface, the imaging sensor designed to capture a mirror image on the surface even if the mirror image is occluded from above (col. 7, lines 13-21 and Fig. 2).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Egli the feature as taught by Fukuchi et al. in order to generate an electronic version of the image on top of the said translucent surface to facilitate further processing of the image in a computer system.

Egli taken with Fukuchi et al. **does not teach** software in a computer designed to adjust the image to compensate for the mirror image captured by the imaging sensor.

Egli taken with Fukuchi et al. *teaches* a drawing tabled comprising a translucent surface with an image sensing device located below the surface of the said translucent surface.

Kroitor **teaches** a computer assisted animation construction system (col. 2, lines 26-67 and col. 3, lines 1-45); Kroitor further **teaches** software resident in a computer designed to adjust the image to compensate for the mirror image captured by the imaging sensor (col. 1, lines 29-51).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Egli taken with Fukuchi et al. the feature as taught by Kroitor in order to provide the means to modify/adjust an image after it has been initially captured.

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Regarding claim 22, Kroitor further **teaches** processing the said captured image on a computer for display on a monitor including animating at least a portion of the captured image (col. 1, lines 31-51).

Regarding claim 41, Egli further **teaches** projecting a light line onto the drawing tablet (col. 12, lines 9-29).

Relative to claim 43, Kroitor further **teaches** transmitting the captured image to a computer; and processing the captured image on a the computer for display on a monitor, including animating a portion of the captured image based on a change in the contents of the captured image (col. 1, lines 31-51).

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Egli taken with Fukuchi et al. in view of Kroitor as applied to claim 7 in item 3 hereinabove, and further in view of Want et al. (USP 5,818,425).

Regarding claim 5, Egli taken with Fukuchi et al. in view of Kroitor **does not teach** a drawing tablet comprising a wireless transmitter designed to wirelessly transmit the image to a wireless receiver coupled to a computer.

Egli taken with Fukuchi et al. in view of Kroitor *teaches* a drawing tabled comprising a translucent surface with an image sensing device located below the surface of the said translucent surface with means to animate images or portions of images utilizing a computer resident software program.

Want et al. **teaches** a system for wirelessly transmitting images generated on a portable drawing tablet to a system computer for display (col. 1, lines 15-67 and col. 2, lines 1-58); Want et al. further **teaches** a drawing tablet comprising a wireless transmitter designed to wirelessly

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transmit the image to a wireless receiver coupled to a computer (col. 3, lines 31-32 and 50-67 and Fig. 1).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Egli taken with Fukuchi et al. in view of Kroitor the feature as taught by Want et al. in order adapt the system to facilitate using the drawing tablet as a remote system input device.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Egli taken with Fukuchi et al. in view of Kroitor as applied to claim 7 in item 3 hereinabove, and further in view of Slotznick (Pub. No. US 2001/0033298).

Relative to claim 13, Egli taken with Fukuchi et al. in view of Kroitor **does not teach** a drawing tablet comprising software in a computer designed to animate at least a portion of the image.

Egli taken with Fukuchi et al. in view of Kroitor teaches a drawing tabled comprising a translucent surface with an image sensing device located below the surface of the said translucent surface with means to animate images or portions of images utilizing a computer resident software program.

Soltznick **teaches** computer software designed to enable communications between other software agents (pg. 1, paras. 0002-0010); Soltznick further **teaches** software in a computer designed to animate at least a portion of the image (pg. 1, para (0003).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Egli taken with Fukuchi et al. in view of Kroitor the feature as taught by Slotznick in order to put in place software that enables the flexibility of animating selected portions of a displayed image.

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6. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Egli taken with Fukuchi et al. in view of Kroitor and further in view of Soltznick as applied to claim 13 in item 5 hereinabove, and further in view of Want et al.

Regarding claim 57, Egli taken with Fukuchi et al. in view of Kroitor and further in view of Soltznick **does not teach** the drawing table comprising a wireless transmitter designed to wirelessly transmit the image to a wireless receiver coupled to a computer.

Egli taken with Fukuchi et al. in view of Kroitor and further in view of Soltznick teaches a drawing table comprising a translucent surface with an image sensing device located below the surface of the said translucent surface with means to animate images or portions of images utilizing a computer resident software program.

Want et al. **teaches** a system for wirelessly transmitting images generated on a portable drawing tablet to a system computer for display (col. 1, lines 15-67 and col. 2, lines 1-58); Want et al. further **teaches** a drawing tablet comprising a wireless transmitter designed to wirelessly transmit the image to a wireless receiver coupled to a computer (col. 3, lines 31-32 and 50-67 and Fig. 1).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Egli taken with Fukuchi et al. in view of Kroitor and further in view of Soltznick the feature as taught by Want et al. in order to adapt the system to facilitate using the drawing tablet as a remote system input device.

7. Claims 36 and 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egli taken with Fukuchi et al. in view of Kroitor as applied to claim 7 in item 3 hereinabove, and further in view of Lovell et al. (USP 4,952,051).

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Relative to claim 36, Egli taken with Fukuchi et al. in view of Kroitor **does not teach** software in a computer designed to animate at least a portion of the image based on a movement of a physical object placed on the surface.

Egli taken with Fukuchi et al. in view of Kroitor *teaches* a drawing tabled comprising a translucent surface with an image sensing device located below the surface of the said translucent surface with means to animate images or portions of images utilizing a computer resident software program.

Lovell et al **teaches** an apparatus for producing animated drawings (col. 1, lines 9-48); Lovell et al. further **teaches** software in a computer designed to animate at least a portion of the image based on a movement of a physical object placed on the surface (col. 16, lines 9-16; col. 26, lines 16-24; Abstract and Fig. 11).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Egli taken with Fukuchi et al. in view of Kroitor the feature as taught by Lovell et al. in order to selectively animate that portion of an image being considered on the surface of the drawing tablet.

Regarding claims 46 and 47, Lovell et al. further **teaches** a computer comprising a storage medium, said storage medium having stored thereon instructions that when executed facilitate the manipulation and display of image data based on the contents, or change from a prior image, of the image (col. 16, lines 13-16). It being understood that the software driving the capture and processing of the image would operate of the image present on the said surface at any onetime.

Regarding claim 48, Kroitor further **teaches** modifying an image based on a change from a prior image includes animating the image based on the change (col. 1, lines 16-20).

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8. Claims 53 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Egli taken with Fukuchi et al. in view of Kroitor and further in view of Lovell et al. as applied to claim 36 in item 7, and claim 41 in item 3 hereinabove, and still further in view of McCoy (USP 6,822,768).

Regarding claims 53 and 54, Egli taken with Fukuchi et al. in view of Kroitor and further in view of Lovell et al. **does not teach** said imaging sensor being designed to capture indicia visible on the image.

Egli taken with Fukuchi et al. in view of Kroitor and further in view of Lovell et al. *teaches* a drawing tabled comprising a translucent surface with an image sensing device located below the surface of the said translucent surface with means to animate images or portions of images utilizing a computer resident software program.

McCoy **teaches** a method of capturing indicia information from a document (col. 2, lines 27-45); McCoy further **teaches** imaging sensor is designed to capture indicia visible on the image (Abstract).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Egli taken with Fukuchi et al. in view of Kroitor and further in view of Lovell et al. the feature as taught by McCoy in order to expand the capability of the image sensing feature to recognizing the various markings that might appear on the image being sensed.

9. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Egli taken with Fukuchi et al. in view of Kroitor as applied to claim 7 in item 3 hereinabove, and further in view of Stumbo et al. (Pub. No. US 2001/0033381).

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Relative to claim 38, Egli taken with Fukuchi et al. in view of Kroitor **does not teach** a galvanometer designed to move the mirrors to steer light emitting from the light emitting source onto the surface.

Egli taken with Fukuchi et al. in view of Kroitor *teaches* a drawing tabled comprising a translucent surface with an image sensing device located below the surface of the said translucent surface with means to animate images or portions of images utilizing a computer resident software program.

Stumbo et al. **teaches** a light detection device (pg. 1, para 0007); Stumbo et al. further **teaches** a galvanometer designed to move the mirrors to steer light emitting from the light emitting source onto said surface (pg. 3, para. 0031).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Egli taken with Fukuchi et al. in view of Kroitor the feature as taught by Stumbo et al. in order to provide means for manipulating the system mirrors to direct the source light onto the said surface.

10. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Egli taken with Fukuchi et al. in view of Kroitor and further in view of Stumbo et al. as applied to claim 38 in item 9 hereinabove, and still further in view of Miller et al. (USP 4,300,167).

Regarding claim 39, Egli taken with Fukuchi et al. in view of Kroitor and further in view of Stumbo et al. **does not teach** a light emitting source constructed and arranged to vary its luminance.

Egli taken with Fukuchi et al. in view of Kroitor and further in view of Stumbo et al. *teaches* a drawing tabled comprising a translucent surface with an image sensing device located below the

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surface of the said translucent surface with means to animate images or portions of images utilizing a computer resident software program.

Miller et al. **teaches** an automatic control system (col. 1, lines 45-68 and col. 2, lines 1-57);

Miller further **teaches** a light emitting source constructed and arranged to vary its luminance (col. 5, lines 9-15).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Egli taken with Fukuchi et al. in view of Kroitor and further in view of Stumbo et al. the feature as taught by Miller et al. in order to provide the means to vary the system light intensity to fit a particular application.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Egli taken with Fukuchi in view of Kroitor as applied to claim 7 in item 3 hereinabove, and further in view of Farr (USP 5,751,863).

Relative to claim 6, Egli taken with Fukuchi in view of Kroitor **does not teach** a drawing tablet further comprising software in a computer designed to adjust the image to compensate for distortion by the imaging sensor.

Egli taken with Fukuchi et al. in view of Kroitor teaches a drawing tabled comprising a translucent surface with an image sensing device located below the surface of the said translucent surface with means to animate images or portions of images utilizing a computer resident software program.

Farr **teaches** a method and system having relaxed front end distortion requirements (col. 2, lines 55-67 and col. 3, lines 1-45; Farr further teaches software in a computer designed to adjust the image to compensate for distortion by the imaging sensor (col. 2, lines 55-67).

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It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Egli taken with Fukuchi in view of Kroitor the feature as taught by Farr in order to overcome any distortion introduced by the imaging sensors and in turn display a more accurate image.

12. Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Egli taken with Fukuchi in view of Kroitor and further in view of Slotznick as applied to claim 13 in item 5 hereinabove, and further in view of Farr.

Relative to claim 58, Egli taken with Fukuchi in view of Kroitor and further in view of Slotznick **does not teach** a drawing tablet further comprising software in a computer designed to adjust the image to compensate for distortion by the imaging sensor.

Egli taken with Fukuchi et al. in view of Kroitor and further in view of Slotznick teaches a drawing tabled comprising a translucent surface with an image sensing device located below the surface of the said translucent surface with means to animate images or portions of images utilizing a computer resident software program.

Farr **teaches** a method and system having relaxed front end distortion requirements (col. 2, lines 55-67 and col. 3, lines 1-45); Farr further teaches software in a computer designed to adjust the image to compensate for distortion by the imaging sensor (col. 2, lines 55-67).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the device as taught by Egli taken with Fukuchi in view of Kroitor and further in view of Slotznick the feature as taught by Farr in order to overcome any distortion introduced by the imaging sensors and in turn display a more accurate image.

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13. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fukuchi et al. taken with Kroitor.

Relative to claim 56, Fukuchi et al. **teaches** a method for using a drawing tablet, the method comprising: placing an object on a translucent surface of the drawing tablet; capturing an image including at least the object from beneath the translucent surface of the drawing tablet so that no objects on the surface of the drawing tablet so occluded form below (col. 7, lines 13-21 and Fig. 2).

Fukuchi et al. **does not teach** moving the object on the translucent surface of the drawing tablet; recording the motion of the object; and playing back the recorded motion of the object in the captured image.

Fukuchi et al. teaches an image reading/sensing device.

Kroitor **teaches** moving the object on the translucent surface of the drawing tablet; recording the motion of the object; and playing back the recorded motion of the object in the captured image.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to provide to the devices as taught by Fukuchi et al. the feature as taught by Kroitor in order to provide the most current status of the object including the most recent move of the object.

Allowable Subject Matter

14. Claims 45 and 55 are allowed.

15. The following is an examiner's statement of reasons for allowance:

Relative to claims 45 and 55, the major difference between the teachings of the said prior art of record and that of the instant invention is that said prior art of record **does not teach** a method comprising capturing a change in the captured image; and measuring how accurately the change follows the projected light.

Response to Applicant's Remarks

16. - Applicant's remarks relative to claims 7, 13, 22, 38 and 43 are rendered moot in light of amendments to said claims 7, 13, 22, 38 and 43.
- Applicant's arguments with respect to claims 36, 41, 46 and 46 have been considered but are moot in view of the new ground(s) of rejection.
- In response to applicant's argument relative to claim 36 that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, and 170 USPQ 209 (CCPA 1971).
- In consideration of the merit of Applicant's remarks regarding the 35 U.S.C. 112 Para. 2 rejection of claim 45, said rejection is herewith withdrawn.

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U. S. Patent No.	6,448,544	Stanton et al.
U. S. Patent No.	6,337,681	Martin
U. S. Patent No.	5,548,417	Sekimoto et al.
U. S. Patent No.	4,232,358	Nichols

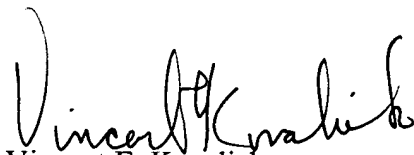
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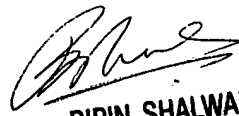
Responses

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vincent E. Kovalick whose telephone number is 703 306-3020. The examiner can normally be reached on Monday-Thursday 7:30- 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703 305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Vincent E. Kovalick
May 20, 2005


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